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**VOLUME 19**

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FOR THE COMMANDER



Gary Tutungian  
Administrative Contracting Officer  
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## **FOREWORD**

Volume 19 of *Unclassified Publications of Lincoln Laboratory* lists reports published from 1 January to 31 December 1993, as well as updated information on earlier publications.

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| 6486 | M-ary Orthogonal Signaling in the Presence of Doppler   | Kachelmyer, A.L.<br>Forsythe, K.W.            | IEEE Trans. Commun., Vol. 41, No. 8, August 1993, pp. 1192–1200                             |
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| 6605 | Bistatic Radar Cross Section for a Perfectly Conducting Rhombus-Shaped Flat Plate: Simulations and Measurements | Fenn, A.J.<br>Lutz, J.E.                      | IEEE Trans. Antennas Propag., Vol. 41, No. 1, January 1993, pp. 47–51                       |
| 6617 | Two CFAR Algorithms for Interfering Targets and Nonhomogeneous Clutter  | Wilson, S.L.                                  | IEEE Trans. Aerosp. Electron. Syst., Vol. 29, No. 1, January 1993, pp. 57–72                |
| 6620 | Phase Variance and Strehl Ratio in Adaptive Optics  | Herrmann, J.                                  | J. Opt. Soc. Am. A, Opt. Image Sci., Vol. 9, No. 12, December 1992, pp. 2257–2258 ADA263491 |
| 6624 | A Simple Exact Method for Generating Continuous Phase Modulated Signals   | Boroson, D.M.<br>McKenzie, P.F.               | IEEE Trans. Commun., Vol. 41, No. 10, October 1993, pp. 1429–1432 ADA273578                 |
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| 6708 | Aligning Lithography on Opposite Surfaces of a Substrate   | Everett, P.N.<br>Delaney, W.F.                                   | Appl. Opt., Vol. 31, No. 34, 1 December 1992, pp. 7292-7294 ADA260700                              |
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6759	Analytic Model of Shot Noise in Double-Barrier Resonant-Tunneling Diodes	Brown, E.R.	IEEE Trans. Electron Devices, Vol. 39, No. 12, December 1992, pp. 2686-2693
6771	Adaptive Mathematical Morphology for Range Imagery	Verly, J.G. Delanoy, R.L.	IEEE Trans. Image Process., Vol. 2, No. 2, April 1993, pp. 272-275 ADA272327
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6786	Metrology of Lithographic Features: Balanced Illumination Eliminating Diffractive Bias	Everett, P.N.	Appl. Opt., Vol. 32, No. 7, 1 March 1993, pp. 1216-1224 ADA268187
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| 6885 | Receiver Autonomous Integrity Monitoring (RAIM) of GPS and GLONASS   | Misra, P.N.<br>Bayliss, E.T.<br>LaFrey, R.R.<br>Pratt, M.M.<br>Muchnik, R.       | Navig. J. Inst. Navig., Vol. 40, No. 1, Spring 1993, pp. 87–104                   |
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| 6893 | Molecular-Beam Epitaxy Growth of Semiconductor Heterostructure Optical Converter Lasers Using the InGaAs/AlGaAs Materials System | Goodhue, W.D.<br>Le, H.Q.<br>DiCecca, S.   | J. Vac. Sci. Technol. B, Vol. 11, No. 3, May/June 1993, pp. 948–951<br>ADA270264  |

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| 6904 | Super-Resolution Methods for Wideband Radar   | Borison, S.L.<br>Bowling, S.B.<br>Cuomo, K.M.   | Linc. Lab. J., Vol. 5,<br>No. 3, Fall 1992,<br>pp. 441-461 ADA270145                     |
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| 6908 | Small-Signal Admittance and Switching Measurements of the Resonant-Tunneling Diode  | Mattia, J.P.<br>Brown, E.R.<br>Calawa, A.R.<br>Manfra, M.J.   | Appl. Phys. Lett.,<br>Vol. 63, No. 4, 26 July 1993,<br>pp. 521-523 ADA271894             |

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